

DIFFRACTIVE OPTICAL ELEMENT

Abstract

A diffractive optical element including a stack of first, second and third optical regions or a stack of first, second, third and fourth optical regions, a first relief pattern formed between the first and second optical regions, and a second relief ^{pattern} _^ patterns formed between the second and third or between the third and fourth optical regions. The first and second relief patterns have substantially identical pitch distributions and are substantially aligned in a direction of an optical axis. Depths of the first and second relief patterns are set such that a wavelength dependency of diffraction efficiency can be decreased over a wavelength range to be used. It is possible to manufacture in a simple manner at a low cost a diffractive optical element in which undesired ^{flares} _^ ghosts _^ ghost are suppressed.